

Listing of the Claims:

1. (Previously presented) A thin film transistor array panel for an X-ray detector, the thin film transistor array panel comprising:
 - a gate wire formed on an insulating substrate and comprising a gate line and a gate electrode connected to the gate line;
 - a gate insulating layer formed on the gate wire;
 - a semiconductor layer formed on the gate insulating layer;
 - a data wire formed on the gate insulating layer and comprising:
 - a data line which intersects the gate line;
 - a source electrode connected to the data line and disposed on the semiconductor layer; and
 - a drain electrode disposed on the semiconductor layer separate from the source electrode;
 - a photo diode comprising:
 - a first electrode connected to the drain electrode;
 - a second electrode which faces the first electrode; and
 - a photo-conductive layer disposed between the first electrode and the second electrode;
 - a passivation layer disposed on the photodiode, the semiconductor layer, the data wire and the drain electrode, the passivation layer having a contact hole which exposes the second electrode;

a bias signal line disposed on the passivation layer and connected to the second electrode through the contact hole; and

a light blocking layer disposed directly on the passivation layer and the bias signal line to cover the photo diode.

2. (Previously presented) The thin film transistor array panel of claim 1, wherein the photo-conductive layer comprises a first amorphous silicon film comprising an N type impurity, a second amorphous silicon film disposed on the first amorphous silicon film and comprising intrinsic amorphous silicon, and a third amorphous silicon film disposed on the second amorphous silicon film and comprising a P type impurity.

3. (Previously presented) A thin film transistor array panel for an X-ray detector, the thin film transistor array panel comprising:

a gate wire formed on an insulating substrate and comprising a gate line and a gate electrode connected to the gate line;

a gate insulating layer formed on the gate wire;

a semiconductor layer formed on the gate insulating layer;

a data wire formed on the gate insulating layer and comprising:

a data line which intersects the gate line;

a source electrode connected to the data line and disposed on the semiconductor layer; and

a drain electrode disposed on the semiconductor layer separate from the source electrode;

a photo diode comprising:

a first electrode connected to the drain electrode;

a second electrode which faces the first electrode; and

a photo-conductive layer disposed between the first electrode and the second electrode;

a passivation layer disposed on the photodiode, the semiconductor layer, the data wire and the drain electrode, the passivation layer having a contact hole which exposes the second electrode; and

a bias signal line disposed directly on the passivation layer, connected to the second electrode through the contact hole and comprising a light blocking layer which covers the photo diode.

4. (Previously presented) The thin film transistor array panel of claim 3, wherein the photo-conductive layer comprises a first amorphous silicon film comprising an N type impurity, a second amorphous silicon film disposed on the first amorphous silicon film and comprising intrinsic amorphous silicon, and a third amorphous silicon film disposed on the second amorphous silicon film and comprising a P type impurity.

5. (Previously presented) A thin film transistor array panel for an X-ray detector, the thin film transistor array panel comprising:

a gate wire formed on an insulating substrate and comprising a gate line and a gate electrode connected to the gate line;

a gate insulating layer formed on the gate wire;

a semiconductor layer formed on the gate insulating layer;

a data wire formed on the gate insulating layer and comprising:

a data line which intersects the gate line;

a source electrode connected to the data line and disposed on the semiconductor layer; and

a drain electrode disposed on the semiconductor layer separate from the source electrode;

a photo diode comprising:

a first electrode connected to the drain electrode;

a second electrode which faces the first electrode; and

a photo-conductive layer disposed between the first electrode and the second electrode; and

a bias signal line connected to the second electrode, wherein

the semiconductor layer is disconnected in a region disposed between the source electrode and the drain electrode, and

the region disposed between the source electrode and the drain electrode is absent semiconductor material to transmit a signal to the data line.

6. (Previously presented) The thin film transistor array panel of claim 5, wherein the photo-conductive layer comprises a first amorphous silicon film comprising an N type impurity, a second amorphous silicon film disposed on the first amorphous silicon film and comprising intrinsic amorphous silicon, and a third amorphous silicon film disposed on the second amorphous silicon film and comprising a P type impurity.